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**DyD**

June 9th, 2009, 10:42 PM

Hey all,

I'm leaving for a family vacation to the Caribbean in a few weeks, which, unfortunately necessitates air travel.

This summer, I've been experimenting with nitroesters, specifically ETN and NC, in amounts less than 10g. As I try and live a fairly simple life, I own just a few outfits and two pairs of shoes, all of which I've worn in/around the lab in recent times.

Nitrocellulose is non-volatile and a fairly common compound (nail polish, flash paper, etc), so I'm not concerned with being strip-searched, even if tests do pick up amounts on my clothes.

However, ETN poses a much more serious problem. It's moderately volatile, doesn't readily decompose, and apparently is readily detectable by detectors and dogs.

In addition to abstaining from lab work these next few weeks, do you all have additional suggestions? As all of my clothes are dark-colored, perhaps I could soak them in a permanganate solution to oxidize any organics? Manganese dioxide is readily removed by a dilute peroxide and acid mixture, so washing my clothes in two steps wouldn't be that difficult. Also, ETN melts at 61degC, which seems within the range of a "hot" cycle in my washer. Would it be removed by 70degC water and a surfactant?

What steps would you take to prepare your clothes for travel?

What excuses would you use to rationalize HE residue on your garments?

As I'm in my early college years, could I blame lab work at my school?

Thanks for any suggestions.

**user814**

June 9th, 2009, 11:11 PM

Sorry I don't have an answer for your dilemma (sp?) but I'll tell you that you're a lot smarter than I am (a fact covered in depth under "Design Me a New Product"). Last year I became intimately acquainted with the TSA folks when I set off their sniffer.

Seems as though the glycerine that precipitates out of the dynamite in my magazine adheres nicely to tennis shoes. I never gave it a second thought. The only thing that saved me was the fact that I had my blaster's license with me.

**FlamingPope**

June 10th, 2009, 01:03 AM

Try searching "airport." It provides some helpful information, and is a good start to researching this subject.

A chemistry professor once advised my class, which was about to break for a holiday, that since we had been working with silver nitrate in the lab to watch out if we fly. Our shoes would have had trace amounts of nitrate possibly detectable by airport security.

Those detectors are ultra sensitive - first hand experience. A quick run down and your through, still its best not to make a scene.

They're built so that even if you wrap explosives in plastic and wash them, they will still set off the detectors later. I would just buy a new outfit and wear that through the detectors (go cheap like a value-mart; or hell your a college student, get one to impress the ladies). Either way, pack the rest in your luggage. Even if the dogs find your luggage- they open it, find nothing, dog gets a beating, and you're on your merry way to pirate:pland without the added hassle.

**iHME**

June 10th, 2009, 05:37 AM

I second the idea of just getting a new pair of shoes and clothes.

I'd say that it is the most simple way.

**Microtek**

June 10th, 2009, 06:02 AM

I think getting new clothes would be the best way if you're worried about setting off the sniffers.

On the other hand, I think it would be quite interesting to see what kind of response you would get: Firstly whether the sniffers would react in the first place and secondly, what would happen if they did. You could maybe clear out your homelab in anticipation of a search, and then just see what would happen.

I have flown post 9/11 myself, but not through US territories and haven't had problems at all. I would have thought that turning up the sensitivity of the sniffers would generate unmanageable amounts of false positives from shoe polish (nitroaromatics), vaso dilatory drugs (usually PETN, NG or other nitrate esters) and especially in the US, gun owners and reloaders.

I would also suggest that you simply say (if questioned) that you spilled some nitric acid during a college lab session, if that could possibly have happened.

**DyD**

June 10th, 2009, 11:03 AM

First - Thank you all for your advice. Since I'm traveling with mostly-innocent and well-respected family members, I want to attempt to minimize any risk of me causing a scene which could have lasting repercussions.

@FlamingPope - I definitely agree that buying a new outfit and new shoes is the KISS approach. I can spend \$30 on a pair of flip-flops and a new outfit and rest assured of my cleanliness or \$30 on chemicals and have there still be some question.

@Microtek - if I \*wasn't\* traveling with the aforementioned family members, I might be tempted to see

Firstly whether the sniffers would react in the first place and secondly, what would happen if they did.

however, I think I'll save that for a later date.

Thanks again.

**shooter3**

June 10th, 2009, 11:06 AM

I was strip searched and swabbed with the sniffer pad as I tried to leave Indiana. Lucky they held the plane for me. All this with not one question from them 'til they were done. I finally told them that I was shooting fireworks the night before (4th of July) and that seemed to satisfy them. I don't think the machine tells what's on you, other than "nitrates".

I still can't get on a plane without a thorough going over, so I guess I'm permanently on "The list".

**DyD**

June 10th, 2009, 11:54 AM

Can anyone confirm or deny that the machine just says "nitrates"? Would it be able to distinguish between nitroesters such as NC, ETN, PETN, etc? If the machine is more or less a mass-spec, it will give ratios of atoms(and functional groups?), not information on molecular orientation, etc. There's not \*too\* much of a difference between the number of nitrates in nitrocellulose and the number of nitrates in ETN.

Theoretically, the dogs can't identify specific compounds unless they've been trained to do so - they'll smell something on "the list" and the handlers have no way of telling whether it's 'benign'(like gunpowder) or "serious"(like EGDN.) What do you all think?

**megalomania**

June 11th, 2009, 12:01 AM

I think they have multiple detector machines. The general use ones are mostly suitable for detecting nitrogen, or rather the ratio of nitrogen to carbon. As almost all explosives have an unusually high ratio of nitrogen to carbon, this is a suitable detection method. Acetone peroxide of course has no nitrogen at all, which is how the shoe bomber got onto a plane with it.

If you do come under their scrutiny there are more sensitive and more accurate instruments to double check. This is where you get taken aside while they scan the hell out of you, call in the dogs, retask the spy satellites, and start fueling the missile silos.

**DyD**

June 11th, 2009, 09:24 AM

Is there any interest in gathering a synopsis of what detectors are implemented at a sampling of airports? We have 30k members and several hundred active members - I think we could assemble a list of a few of the most commonly implemented detectors without labeling them by airports. I can start the list in a few weeks when I fly next.

**-HeX-**

June 11th, 2009, 05:12 PM

Ok. Time for some mythbustin'. In March this year, I went through Shannon Airport (Ireland, Republic of) TWICE, and Birmingham International Airport (UK) TWICE, onto two aeroplanes, through the sniffers, etc, wearing my 'nitratin jacket' and 'explosive work clothes' (effectively old clothes I wear in the lab) and on my first flight I was fresh from the lab. Not to mention I carried several sheets of Flash Paper (NC) in my pockets the whole time, and had rubbed AN into the soles of my shoes. I was tryin to get a reaction but zilch, zap, nada, fuck all. Not a bloody squeak. Sure, some english twats, Sergeant Fondle and Constable Pat Stroke felt my bollocks a bit in Birmingham, but that was due to belt buckle setting off the bloody metal detectors.

So, Bomb sniffers? Not here anyways.

**slarter**

June 11th, 2009, 07:24 PM

From my personal experience: I retired from the US Military as an EOD Technician and now work as a Gov't contractor testing and evaluating ordnance and explosives.

I have set off the detectors at NYC (royal pain in the ass), San Diego, Little Rock and Chicago. Every time was when they swabbed my luggage, both checked and carry ons. They run the swabs through a M/S and they will hit on the tiniest amount. I have had it come back for TNT, RDX and PETN. It is to the point that now I just show them my Gov't ID and tell them that my luggage will most likely set off their scanners. I use to try to prevent contamination from work but after my Mom popped for TNT at the airport after a visit with me, I just gave up and try to forewarn them.

Note that you are far less likely to pop positive than me as I handle explosives regularly and in large quantities. I also have a bad habit of using my pocket knife to cut C-4, Det-a-sheet and det-cord and then stick it back in my pocket.

Don't waste money buying new clothes and shoes because, if you have brought back any residue to your house they will just get contaminated there. My advice would be to tell them that you either work with explosives (only if you have a legitimate reason) or that you are a chemistry student and have handled materials in the lab. 99% of the TSA clowns wouldn't know a nitrate from a nincompoop.

**Dysprositos**

June 12th, 2009, 11:50 AM

...ETN melts at 61degC, which seems within the range of a "hot" cycle in my washer. Would it be removed by 70degC water and a surfactant? What steps would you take to prepare your clothes for travel? What excuses would you use to rationalize HE residue on your garments? As I'm in my early college years, could I blame lab work at my school?... DyD you are correct, ETN melts at 61°C but at its boiling point, 160°C, it decomposes. I would predict that this temperature would be sufficient enough to oxidize/decompose the compound. Also what are the repercussions to going through an airport and having a positive HE result on your clothing? As long as they do not find a good amount of it, would it still be of concern?

**Nitronator**

June 12th, 2009, 10:59 PM

I personally reside in the land down under and have had a few interesting issues with the customs grunts at Sydney Airport. I had been for the past few days experimenting with various nitro-esters, NC, NG, ETN etc. I made it through customs, did not ping on any of the scanners, walked straight past no less than three four legged donut munchers, everything was looking rosy. Reached my boarding gate, sat down to read the obligatory "Time" magazine and got nabbed by a 4 legged donut muncher..... IN TRAINING!!!

They hauled me in, did the tests and I popped for ETN, because the Australian customs officials are a little more lenient than the American equivalent, my excuse of:

"I am a University Chemistry student, I have been experimenting with ETN as a Testing medium" plus the whole respectable young adult act, seemed to pull the wool over the guys eyes.

In all seriousness but they are only doing their Jobs, and credit where credit is due they seem to be pretty damn good at it, they just need to retrain the noses of a few of their Muts. But all things aside, it seemed that if your good at pissing into the wind about why you have popped for a highly explosive material you should be fine, I got to my flight ontime with nothing more than a good story and a look in at what the Fuzz actually uses to detect these sorts of substances.

**Dysprositos**

June 13th, 2009, 01:57 PM

What machines did they use to identify the ETN? Are they simple or did they have things similar to what you would find in a university's chemistry lab? One more question, what happens if the "donut munchers" actually check and see if you are truly a chemistry student or they find out you are but investigate further to find out that your class is still studying atomic bonds? :eek: